

**ABSTRACT**

A circuit for detecting an overcurrent in an element in which an A.C. supply current flows, including a first comparator, assigned to the halfwaves of a first sign of the A.C. power supply, receiving on a reference input a first reference voltage setting a first one of the thresholds, a second comparator, assigned to the halfwaves of a second sign of the A.C. power supply, receiving on a reference input a second reference voltage setting a second one of <sup>the</sup> said thresholds, and an input stage providing, to respective interconnected read inputs of the comparators, a voltage proportional to <sup>the</sup> said voltage across the element, the stage including at least one first resistive element introducing a voltage drop between a first one of the terminals of the element and the read inputs.

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